

REMARKS/ARGUMENTS

Reconsideration and further examination of the present Application is requested. Claims 1-21 were pending and were rejected. By this Amendment, Claims 22-24 are added, and Claims 1-21 are canceled. No new matter is introduced by these amendments.

The amendment to the Specification suggested by the Examiner has been adopted. On Page 6, line 3, "320a" is changed to simply --320--.

Antennas can experience nulls in reception as they move in space relative to the signal transmitter. Two antennas, separated by some distance (spatial diversity), will experience differences in such nulls because they are not in the same place. So spatially diverse antenna arrays offer an advantage because receivers can be switched among the antenna elements to one receiving a good signal at that instant, and thereby reduce fading. But antenna arrays are expensive and take up more room.


So the present invention takes advantage of the differential mode and common mode signals that are inherent in a simple antenna element 330 (Fig. 3) coupled to a receiver 350 by a coax cable 335. At the receiver 350, a first diversity signal 376a is available in differential mode, e.g., across the coax cable's inner and outer conductors. In conventional systems, the coax cable's outer conductor is simply connected to the local ground at the receiver input. But in the present invention, there is a second diversity signal 376b made available by not grounding the coax cable's outer conductor to the local ground at the receiver input. Instead, a device like a transformer 381 is used to extract the common mode diversity signal 376b.

Massey (US 6,150,983) describes something quite different, using an antenna element with at least two wave-guide assemblies. Given the imprecise recitations of Claims 1-21, such Reference may have been reasonable. However, Massey '983 is not addressed to the problem of extracting two diversity signals from one antenna. It further does not combine differential and common mode signals for any purpose.

Claims 1-21 apparently did not recite the intended subject matter very clearly. It was a rather simple matter to find art that these claims would read on. Claims 22-24 more precisely recite the intended subject matter, and the recitations include the element numbers from Fig. 3 to demonstrate no new matter is being introduced and to eliminate any ambiguities that may otherwise be read.

Claims 22-24 are believed to be in condition for allowance, and withdrawal of the rejections appears to be appropriate. If any remaining issues can be addressed on the telephone, the Examiner is invited to call the undersigned at (916) 226-6745.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'R. B. Main', with a stylized flourish at the end.

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By _____
Richard B. Main, Reg. No. 33258
(916) 226-6745

Correspondence Address:

Intellectual Property & Standards
Philips Electronics North America Corporation
1109 McKay Drive; Mail Stop SJ41
San Jose, CA 95131 USA